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Page 3, between lines 12 and 13, insert a new heading as follows:

SUMMARY OF THE INVENTION

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Page 5, between lines 26 and 27, insert a new heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

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Page 6, between lines 10 and 11, insert a new heading as follows:

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Page 10, between lines 12 and 21, insert a new paragraph as follows:

The laser, beamsplitter and detector of the optical sensing system are mounted on a base plate 64 of the extension 50, and are therefore in a fixed position relative to the displaceable stylus tip. A circuit board 66 is also supported on the base plate by means of three pillars 68, 69, only two of which are shown. The circuit board carries some of the electronics required by the optical sensing system and is electrically connected (by means not shown) to spring loaded contact pins 70 which carry electrical signals from the stylus carrier to the housing 16.

IN THE CLAIMS:

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Please cancel claim 1 without prejudice to or disclaimer of the subject matter contained therein.

Please replace claims 2-5 as follows:

2. (Amended) A surface sensing device according to claim 3 wherein the light

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source and the detector are mounted to fixed structure to which the stylus is connected.

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2. (Amended) A surface sensing device for use in position determining apparatus and which includes a hollow stylus having a workpiece-contacting tip and an optical transducer system, said optical transducer system comprising a light source for producing a beam of light directed internally of the stylus towards the tip of the stylus, an optical component mounted adjacent the tip of the stylus to return the beam, and a detector positioned relative to the returned beam to receive the beam and to produce a signal indicative of a lateral displacement of the stylus tip, wherein the optical component is a retro-reflecting device which is substantially insensitive to tilting of the stylus tip.